

WHAT IS CLAIMED IS:

1. A portable composite communication terminal for voice communication and image transmission/reception, comprising:

5 a camera unit that digitally captures the image of an object, constructs the image in a predetermined format, compresses the formatted image, and stores the compressed image in the camera memory under a predetermined camera control;

10 a portable phone unit that provides overall control to the portable composite communication terminal and selectively performs voice communication and image transmission/reception according to a selected transmission mode among predetermined modes;

a display that displays images and characters under the control of the portable phone unit; and

15 an interface between the portable phone unit and the display to display images and characters on the display under the control of the portable phone unit.

2. The portable composite communication terminal of claim 1, further comprising a key pad having a plurality of keys that interface with the portable phone unit and a plurality of keys that interface with the camera unit, for use in
20 photographing and reproducing an image.

3. The portable composite communication terminal of claim 2, wherein the keys related with the camera unit include a photograph/play key, a mode key for selecting a camera environment, a shutter key for capturing an object image, an
25 enter key for setting a camera environment selected by the mode key, and a camera on/off switch.

4. The portable composite communication terminal of claim 3, wherein the mode key, the shutter key, and the enter key are located on the frontal surface of the portable composite communication terminal.

5 5. The portable composite communication terminal of claim 3, wherein modes selected by the mode key includes a delete function mode, a data function mode, a display function mode, and a sensitivity function mode.

6. The portable composite communication terminal of claim 3, wherein
10 the photography/play key and the camera on/off switch are provided on a side of the portable composite communication terminal.

7. The portable composite communication terminal of claim 4, wherein
15 the mode key, the shutter key, and the enter key are exposed when a flip is folded in the portable composite communication terminal.

8. The portable composite communication terminal of claim 1, wherein
the camera unit has a lens at an upper portion of the rear surface of the portable composite communication terminal.

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9. The portable composite communication terminal of claim 1, wherein the portable phone controller controls a battery power voltage to be supplied to the camera unit when a user turns on the camera on/off switch.

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10. The portable composite communication terminal of claim 1, wherein the portable phone controller controls an LCD power supply to the display unit when a user turns on the camera on/off switch.

11. The portable composite communication terminal of claim 9, wherein the portable phone controller controls an operational voltage supplied to the camera controller when the terminal is in a portable phone mode by turning off the camera on/off switch.

12. The portable composite communication terminal of claim 1, wherein the interface unit comprises:

an on screen display (OSD) controller that controls one of a downloaded background image on the display and characters; and

a selector that selectively outputs an external image signal received from one of the camera unit and an OSD image signal received from the OSD controller under the control of the OSD controller.

13. The portable composite communication terminal of claim 1, wherein the portable phone unit comprises a memory having an operation program, an application program, a data function, and a user interface function, an Internet protocol inclusive of a protocol to connect the portable composite communication terminal to a point to point (PPP) protocol server and a protocol needed over an Internet, a radio link protocol for establishing a radio link, and a communication protocol.

14. The portable composite communication terminal of claim 13, wherein the application program includes the additional functions of a voice dialing, character recognition, game information management, and game function, the data function includes a browsing, E-mail, and facsimile function, and the user interface function includes a graphics user interface.

15. The portable composite communication terminal of claim 1, wherein the camera unit comprises means for converting the digitally captured image to a JPEG format, compressing the formatted image data, storing the compressed image data in the camera memory, and decompressing the stored compressed image data under a predetermined read control.

16. A communication system for transmission and reception of voice and images, comprising:

10 a portable composite communication terminal having a camera unit that digitally captures the image of an object, constructs the image in a predetermined format, compresses the formatted image, and stores the compressed image in the camera memory under a predetermined camera control, a portable phone unit that provides overall control to the mobile visible phone and selectively performs voice communication and image transmission and reception according to a selected transmission mode among predetermined modes, a display that displays images and characters under the control of the portable phone unit, and an interface between the portable phone unit and the display that displays images and characters on the display under the control of the portable phone unit;

20 a mobile communication network for transmission and reception of voice and images to and from the portable composite communication terminal; and

a server connected to the mobile communication network, for providing transmission and reception service of image data over the mobile communication network.

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17. A method of operating a portable composite communication terminal which functions as both a portable phone and a camera, comprising the

steps of:

setting a portable phone mode by turning on the portable composite communication terminal, regulating voltage supporting components of the portable phone mode, and performing a general portable phone function;

5 setting a camera mode upon user request for camera operation, regulating voltage supporting components of the camera mode, and performing a camera function;

capturing the image of an object upon user request for a photograph in the camera mode; and

10 displaying a captured image stored in a camera memory of the portable composite communication terminal on a display of the portable composite communication terminal upon user request for displaying the image.

18. The method of claim 17, wherein a first voltage is supplied to a portable phone unit of portable composite communication terminal when the portable phone mode is set.

19. The method of claim 17, wherein a second power voltage is supplied to a camera unit of portable composite communication terminal when the portable phone mode is set.

20. A data transmitting method for a portable composite communication terminal which functions as both a portable phone and a camera, comprising the steps of:

25 entering a first E-mail transmission sub-mode upon user request for E-mail transmission while operating in a portable phone mode, the first e-mail transmission sub-mode performing a portable phone function;

entering a second E-mail transmission sub-mode upon user request for E-mail transmission while operating in a display sub-mode, the second e-mail transmission sub-mode displaying an image captured in a camera mode;

transmitting the address of the other party and a message received through a user interface in the first E-mail transmission sub-mode; and

transmitting the address of the other party and the message received through the user interface and the image displayed on the display as an E-mail in the second E-mail transmission sub-mode.

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